



Chesapeake Bay Day Highlight

ARS held the first Chesapeake Bay Day at Beltsville, Maryland, last September 28. Among the research featured was work on finding out if pasteurization kills microbes in cow manure. Equipment lent by N-Viro, International, of Toledo, Ohio, may show whether pasteurization kills *Escherichia coli*, *Cryptosporidium parvum*, and other pathogens that can lurk in manure. It mixes manure with recycled materials like cement or lime kiln dust, coal ash from electric power plants, and gypsum. The experiment will compare pasteurization with composting, assessing both systems for odor control and effectiveness in killing disease-causing organisms. Researchers want to see if pasteurization will convert phosphorus in manure to a form less likely to leach into streams and rivers. They will also test materials such as alum for their ability to stabilize phosphorus in manure. If the experiment works, it could help prevent the escape of phosphorus and pathogens in farm runoff and provide a safe outlet for two materials found in excess in Chesapeake Bay coastal areas: high-phosphorus chicken litter and harbor dredging spoils. *Patricia D. Millner, USDA-ARS Soil Microbial Systems Laboratory, Beltsville, Maryland; phone (301) 504-8163, e-mail pmillner@asrr.arsusda.gov.*

What Hispanic Americans Eat

Public health professionals, researchers, educators, and dietitians serving the Hispanic community can now spot dietary patterns that could affect health. That's thanks to the 1994-96 What We Eat in America Survey (also known as the CSFII) that inventoried food and nutrient intakes. The data show that Mexican Americans eat more fiber than other Hispanics, non-Hispanic whites, and non-Hispanic blacks—17 grams daily, on average, for all Mexican Americans. This is closer than the other groups to the 20 to 30 grams recommended by the National Institutes of Health. Adult Mexican American males age 20 and over consumed nearly 24 grams of fiber on average, while teenage males consumed nearly 20.

Legumes may contribute a large portion of that fiber, since adult Mexican American males averaged 107 grams of legumes a day and teenage males, 71. That's double the intake of other Hispanics and almost four times that of non-Hispanic groups. Not surprisingly, Mexican Americans eat more tortillas and taco shells than other Hispanics—about twice as many—while the latter group eats three times more rice. Sixty-three percent of the milk consumed by Mexican Americans is whole (rather than low-fat alternatives), compared to 59 percent for other Hispanics, 70 percent for U.S. blacks, and 25 percent for whites. In 1994-96, both Hispanic groups were low in the same nutrients as the general population, with intakes of vitamin E, calcium, and zinc below Recommended Dietary Allowances. Blacks also fell below the RDA for magnesium. *Katherine Tippet, USDA-ARS Food Surveys Research Group, Beltsville, Maryland; phone (301) 504-0170, e-mail ktippet@rbhnrc.usda.gov.*

The raw survey data are available on CD-ROM from the National Technical Information Service at 1-800-553-6847 (Accession No. PB98-500457). Data

tables can be viewed on the USDA's Food Surveys Research Group web site at <http://www.barc.usda.gov/bhnrc/foodsurvey/home.htm>.

Collaring Deer Ticks To Reduce Lyme Disease

An automatic device that puts a pesticide-impregnated collar around a white-tailed deer's neck may help reduce Lyme disease in the Northeast and help control cattle fever ticks along the Texas-Mexico border. Lyme disease is the most prevalent tickborne human disease in the United States, with about 90 percent of the cases reported to the Centers for Disease Control and Prevention occurring in northeastern states.

Pesticide collars are commonly used for controlling ticks and other parasites on domestic animals. But until now, collaring wildlife has meant trapping or tranquilizing the animals. The new collaring unit, patented by Agricultural Research Service scientists, lures deer to a specially designed feeder. To eat, an animal must place its neck near the collaring mechanism, which releases a flexible, self-adjusting collar similar to flea collars worn by cats and dogs. ARS researchers in Kerrville, Texas, who tested the collars on captive deer, found no ticks attached and feeding on the animals. The collars are impregnated with amitraz, a pesticide approved for livestock that also kills ticks on deer hair and skin. If approved for use on deer, it would be safe to use during hunting season, from October through December, when most adult blacklegged ticks—the culprits behind Lyme disease—are feeding. Further research, along with a cooperative research and development agreement with Wildlife Management Technologies of Noank, Connecticut, should lead to refinements of this tick-control method. *J. Mathews Pound, USDA-ARS Livestock Insects Research Laboratory, Kerrville, Texas; phone (830) 792-0342, e-mail jmpound@krc.*